

Claim Amendments

1. (currently amended) A cutting insert comprising:

- a base body comprising cemented carbide;
- at least one cutting body comprising ceramic material;
- said base body comprising at least one recess;
- said at least one recess being configured to receive said at least one cutting body;
- said at least one cutting body being joined to said base body by ~~an~~ a non-metallic adhesive configured to withstand high temperatures generated during use of the cutting insert in recessing or copy turning metal workpieces;
- said at least one cutting body having a geometric shape;
- said at least one recess having a geometric shape; and
- at least a portion of the geometric shape of said at least one cutting body being congruent with the geometric shape of said at least one recess.

2. (previously presented) The cutting insert according to claim 24, wherein the geometric shape of said at least one ceramic cutting body is the shape of a circular truncated cone.

3. (canceled)

4. (previously presented) The cutting insert according to claim 2, wherein:

said at least one ceramic cutting body has a first end surface and a second surface disposed at opposite ends of said truncated cone;

said first end surface is smaller in diameter than said second end surface;

said at least one recess comprises a bottom surface and a side surface disposed substantially transverse to said bottom surface;

said first end surface is attached to said bottom surface of said at least one recess;

said second end surface comprises a cutting edge formed at the exposed circular perimeter edge of said second end surface of the circular truncated cone and extends in the shape of a partial circle; and

the circular truncated cone is a perpendicular circular truncated cone.

5. (canceled)

6. (previously presented) The cutting insert according to claim 4, wherein said cutting edge comprises a partial circle of at least 200° and not more than 230°.

7. (original) The cutting insert according to claim 6, wherein said cutting insert defines a clearance angle of $< 10^\circ$.

8-12. (canceled)

13. (previously presented) The cutting insert according to claim 7, wherein:

said clearance angle is $7 \pm 2^\circ$;

said base body comprises at least one groove extending transversely to the longitudinal axis of said cutting insert for fastening said cutting insert to a toolholder;

said at least one groove is defined on either side by raised portions extending substantially parallel to said at least one groove;

said cutting insert is configured as an indexable insert; and

said indexable cutting insert is fitted with two, three, or four cutting bodies.

14. (currently amended) The cutting insert according to claim 1, wherein said at least one cutting body has a circular shape and the maximum diameter of said at least one cutting body is in the range of 4 ± 0.05 mm to 10 ± 0.05 mm.

15-17. (canceled)

18. (previously presented) A cutting insert comprising:
a base body comprising cemented carbide;
at least one cutting body comprising ceramic material;
said at least one cutting body comprising a cutting edge to cut into metal; and

said at least one cutting body being joined to said base body:
said base body comprises at least one recess;
said at least one recess being configured to receive said at least one cutting body;

said at least one recess is substantially, congruently shaped

with respect to at least a portion of said at least one ceramic cutting body;

said at least one ceramic cutting body is in the shape of a circular truncated cone;

said at least one ceramic cutting body has a first end surface and a second surface disposed at opposite ends of said truncated cone;

said first end surface is smaller in diameter than said second end surface;

said at least one recess comprises a bottom surface and a side surface disposed substantially transverse to said bottom surface;

said first end surface is attached to said bottom surface of said at least one recess;

said second end surface comprises a cutting edge formed at the exposed circular perimeter edge of said second end surface of the circular truncated cone and extends in the shape of a partial circle;

said cutting edge comprises a partial circle of at least 200° and not more than 230° ;

said cutting insert defines a clearance angle of one of (A) and

(B):

(A) $< 10^\circ$; and

(B) $7 \pm 2^\circ$;

said at least one cutting body is bonded or brazed into said at least one recess;

said base body comprises at least one groove extending transversely to the longitudinal axis of said cutting insert for fastening said cutting insert to a toolholder;

said at least one groove is defined on either side by raised portions extending substantially parallel to said at least one groove;

said cutting insert is configured as an indexable insert;

said indexable cutting insert is fitted with two, three, or four cutting bodies; and

the maximum diameter of said at least one cutting body is in the range of 4 ± 0.05 mm to 10 ± 0.05 mm.

19. (currently amended) A method of using a cutting insert comprising: a base body comprising cemented carbide; at least one cutting body comprising ceramic material; said base body comprising at least one recess; said at least one recess being configured to

receive said at least one cutting body; and said at least one cutting body being joined to said base body by ~~an~~ a non-metallic adhesive configured to withstand high temperatures generated during use of the cutting insert in recessing or copy turning metal workpieces; said method comprising the step of:

recessing or copy-turning a workpiece, in particular at a high rotating speed.

20. (previously presented) The method according to claim 28, wherein the maximum diameter of said at least one cutting body is in the range of 4 ± 0.05 mm to 10 ± 0.05 mm, and said step of recessing or copy-turning comprises recessing or copy-turning metal workpieces.

21-22. (canceled)

23. (previously presented) The cutting insert according to Claim 14, wherein said adhesive comprises an organic adhesive.

24. (previously presented) The cutting insert according to Claim

23, wherein said adhesive comprises dimethacrylate ester.

25-26. (canceled)

27. (previously presented) The method according to Claim 19, wherein said adhesive comprises an organic adhesive.

28. (previously presented) The method according to Claim 27, wherein said adhesive comprises dimethacrylate ester.

29. (currently amended) A cutting insert comprising:
a base body comprising cemented carbide;
at least one cutting body comprising ceramic material;
said base body comprising at least one recess;
said at least one recess being configured to receive said at least one cutting body;
said at least one cutting body being joined to said base body by an organic adhesive;
said at least one cutting body having a geometric shape;
said at least one recess having a geometric shape;

at least a portion of the geometric shape of said at least one cutting body being congruent with the geometric shape of said at least one recess; and

the maximum diameter of said at least one cutting body being in the range of 4 ± 0.05 mm to 10 ± 0.05 mm.

30. (previously presented) The cutting insert according to claim 29, wherein the geometric shape of said at least one ceramic cutting body is the shape of a circular truncated cone.

31. (previously presented) The cutting insert according to claim 30, wherein:

said at least one ceramic cutting body has a first end surface and a second surface disposed at opposite ends of said truncated cone;

said first end surface is smaller in diameter than said second end surface;

said at least one recess comprises a bottom surface and a side surface disposed substantially transverse to said bottom surface;

said first end surface is attached to said bottom surface of said

at least one recess;

said second end surface comprises a cutting edge formed at the exposed circular perimeter edge of said second end surface of the circular truncated cone and extends in the shape of a partial circle; and

the circular truncated cone is a perpendicular circular truncated cone.

32. (previously presented) The cutting insert according to claim 31, wherein said cutting edge comprises a partial circle of at least 200° and not more than 230° .

33. (previously presented) The cutting insert according to claim 32, wherein said cutting insert defines a clearance angle of $< 10^\circ$.

34. (previously presented) The cutting insert according to claim 33, wherein:

said clearance angle is $7 \pm 2^\circ$;

said base body comprises at least one groove extending transversely to the longitudinal axis of said cutting insert for

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fastening said cutting insert to a toolholder;

said at least one groove is defined on either side by raised portions extending substantially parallel to said at least one groove;

said cutting insert is configured as an indexable insert; and

said indexable cutting insert is fitted with two, three, or four cutting bodies.